

boroughshire, unsurpassed mountains of feathery softness and oblivion of travel; I had visited the Holy Isle, and the princely grandeur of Alnwick Castle, and the lowly solitude of Warkworth Hermitage; I had explored the lovely banks of the Tweed, and laughed to scorn the frontier barrenness of the Lammermuir; and, under somewhat extraordinary circumstances, was ushered into the Scottish capital, castle-crowned and palace-footed, splendid and filthy, philosophical and foolish, refined and rude, sober and drunken, religious and licentious. The contrast with London was very striking, for in those days the intercourse between the countries, as compared with the present facilities and habits, might be esteemed of rare occurrence; and therefore it is that I propose to devote a chapter of my recollections to a view of Edinburgh—not from Arthur's Seat or the Calton Hill, but from the interior—the Parliament Close and its law-courts, the Luckenbooths and its "mercats" close by, the Canongate and its wynds, the night-house, the college, and the kirk.

JENNER.

VIEWED impartially, and without prejudice, medical doctors need not be inordinately proud about their mastery over diseases. Blue bottles glare thickly enough, pills are rolled by the million, and blood pours forth in crimson stream at the will and pleasure of the myriad disciples of Æsculapius and Hygeia. But diseases still hold their own. Palliatives, indeed, there are many, but specifics few. Whatever may be permitted medical science to accomplish in times to come, the people who now die from sheer old age bear a small proportion to those whose thread of life is prematurely cut short by disease or accident.

Yes, indeed; lamentable but true it is that medicine ranks amongst its agencies remarkably few things which deserve to be regarded as specifics, or any way approaching specifics. Brimstone may certainly be considered as one; for since the cutaneous energies of this substance have become well known, a certain national instrument (speaking in a figurative sense), commonly said to have preceded bag-pipes as the national instrument of Scotland, is considerably less played upon than of yore—a fact which sets forth to all intelligent people the peculiar sense of what I desire to convey, without the necessity of more precise individualization.

Two or three other bodies might perhaps be enumerated as fairly entitled to be denominated "specifics;" with them we close the list, and take a melancholy glance at the weak contest prosecuted by doctors on the one hand, with the noxious brood of diseases on the other. Perhaps the most interesting of all specific remedies is vaccine virus, which, primarily generated in the cow, protects, as the rule, human beings who have been inoculated with it, from the attack and ravages of that much and justly-dreaded disorder, *variola*, or small-pox.

Certain complaints may occur to one and the same individual again and again. Each attack, far from making every subsequent attack less dangerous, may exert the very opposite agency of rendering the body less able to battle against the disease. A second class of diseases there is, which,

although they may occur to the same individual again and again, yet, as the rule, each subsequent attack is milder than the last. Finally, there remains a third and very interesting class of diseases which, having occurred once, never, as the rule, occur again. Each of this class seems to have the effect of liberating some specific poison from the human system. What parent of a family is there who does not watch with anxious trembling for the happy time when whooping-cough, scarlatina, and measles, shall have come and gone? and who does not feel relieved of a deep anxiety when successful vaccination has placed a youthful subject (speaking in a general way) beyond the power of that great enemy to human health and human beauty—disfiguring small-pox—to harm?

Mark well the words, "in a general way." Far be it from me to aver, as was once averred, that vaccination is an invariable preventive of small-pox. It is no such thing. Neither would I desire to lay the blame of small-pox occurring after vaccination to some fancied imperfection of vaccine matter, or error in the way of applying it. There are contingencies, of course. They have happened, and will probably still happen; nevertheless, there are undoubted cases on record—cases within the scope of my own personal experience, indeed—of the occurrence of small-pox after the most undoubtedly successful vaccination, with virus undoubtedly good. In remembering these facts, we are also bound to remember that one attack of small-pox, though it usually protects the sufferer ever after, is not always attended with this happy result; but I believe that second cases of small-pox are considerably more rare than cases of small-pox after vaccination.

Taken all in all, perhaps no disease is more generally dreaded by persons liable to its ravages than small-pox. Plague, and typhus, and cholera may, indeed, be more deadly (though, assuming the cases of small-pox to be extreme, even *that* may be doubted), but they are at least not disfiguring. Typhus or scarlatina attacks you, lady; you die, or else you recover: if the latter, no brand-mark of the malady scars you, nor mars one trait of personal beauty your countenance ever owned. Small-pox, however, not content with inflicting pain and jeopardizing life, so horribly maims sometimes, that the victim, though well in health, is ever after rendered an object of commiseration. Notwithstanding that the great discovery of Jenner has not accomplished quite all that he and his later contemporaries expected of it, nevertheless it is a great fact, and can hardly be overrated as to its importance. How few are the marked faces seen now, compared with what must have been, judging by the records of a hundred years ago!

The way in which the preservative qualities of vaccine matter were discovered by Jenner is a standing record of his accuracy of observation; and the persistent steps he took to bring the great discovery to bear, stemming the tide of much prejudice and opposition, are honourable testimonies to his courageous perseverance.

Dr. Jenner was born in 1749, at Berkeley, Gloucestershire, where his father was vicar. He was educated at Cirencester, which town subsequently produced the celebrated surgeon, William Lawrence. After his apprenticeship, on arriving





STATUE OF JENNER.

in the metropolis for the purpose of studying medicine, circumstances threw him in the way of John Hunter, with whom he resided for a period of three years. Having obtained his diploma, he returned to his native village, where he was fortunate enough to make the extraordinary discovery which has since proved of such inestimable benefit to mankind.

Sudbury is a grazing neighbourhood, and Jenner's professional avocations threw him much amongst farmers and milkmaids in that district. Once, whilst the small-pox was raging there, Jenner was not a little surprised to hear certain of the milk damsels talk slightly of the fell disease. "We don't care; it can't hurt us," said they, "whatever it may do to our neighbours." A statement so remarkable, and from women too, not a little astonished the doctor. He did not fail to press his inquiries further, when he elicited, on the part of the milkmaids, the belief that cows were occasionally subject to a disease communicable

by contact to human beings, and, when thus communicated, it protected them against the small-pox.

Questioning the medical men of the district; they told him the tale had been heard before, moreover, they expressed their belief in it, to some extent. Acknowledging that a slight protection might indeed be given by the vaccine virus, they argued that it was by no means perfect. Indeed, it would appear that before the notice of Jenner had been drawn to this curious circumstance, a statement of it had been conveyed to Sir George Baker, who, not crediting it, dismissed it as a popular error.

Though it was not until Jenner had been many years settled in practice that the demonstration as to the efficacy of vaccination was finally accomplished, yet the milkmaids' statements, listened to so frequently during his pupilage, made a deep impression on him. He mentioned the circumstance to that profound physiologist and acute thinker, John Hunter, but still without success.





STATUE OF SIR ISAAC NEWTON.

Jenner could not make the great man put faith in a statement in every way so extraordinary. From this explanation it will be perceived, that though Jenner was not the first to make known the protective agency of the vaccine virus, nevertheless the safeguard might have lain dormant for an indefinite time, or perhaps not have been turned to account at all, were it not for the genius and perseverance, under prejudice and ridicule, of the Sudbury general practitioner.

Not until the year 1780 did the idea first occur to him that it might be possible to propagate the cow-pox, and thus impart security against small-pox, by inoculation, first from the cow to the human body, and thence from one body to another. In 1788, an accidental case having occurred, Jenner caused a drawing of it to be made, and took it with him to London. He showed it to

Hunter, Cline, and other great men, but still unsuccessfully. Discouragement met him on all sides, and ridicule on many; but Jenner was not a man to be easily disabused of an opinion which he saw good cause for entertaining.

A decisive experiment was soon to follow; and it was this. On the 14th of May, 1796 (a day still commemorated by an annual festival at Berlin), a boy eight years old was inoculated with matter taken from the hands of a milkmaid. He caught the disease, and passed through it in a satisfactory manner. On the 1st of July following, the same boy was inoculated for the small-pox, but without avail. The constitution was satisfied, and would not take the virus. Various experiments of similar kind followed—all with equal success. In 1798, Jenner published his first memoir "On the Causes and Effects of Variola Vaccina," the evidence of which



was sufficiently conclusive to elicit a declaration from seventy of the chief physicians and surgeons in London, expressing their confidence in it. From that time forward, vaccination may be considered to have taken firm hold of civilized society.

Now, when the merits of vaccination are so fully recognised, and when people are so universally thankful that the discovery has conferred upon them a blessing so inestimable, it is difficult to convey a notion of the violent opposition Jenner met with, and the strange lines of argument adopted by his gainsayers in depreciation of the discovery. This very morning I have just read in the columns of my newspaper, certain pleas which a middle-aged gentleman placed on record to absolve him from the liability of paying his former innamorata damages for not marrying her as he promised to do. Plea number one was, that he did *not* promise; plea number two—"and if he *did* promise, the lady had not given him a reasonable time for fulfilment of the promise." I never could understand the mystery of special pleading, any more than the Austrian prince, who, when the reigning duke of the state of Krachjawshdomerstein, or some other name; omitted to fire a salute, and humbly submitted that he had no less than fourscore reasons for the omission, the prince, on learning the first reason to be "no guns to fire with," begged him to say nothing about the rest. Yet, special pleading of this sort is a very common talent. Generally, a considerable discovery is no sooner announced, than some clever antagonist starts up to proclaim a pair of facts. Fact number one: "It isn't a discovery at all." Fact number two: "And the reputed discoverer did not discover it."

Thus did it come to pass with Jenner; but he triumphed in the end; and glad I am to record that the legislators of my country, for once, were liberal to a discoverer. By virtue of two parliamentary grants, Jenner was rewarded by a donation of thirty thousand pounds.

When universal appreciation bespoke Jenner a great man, solicitations came thick and fast, bent on enticing him away from the rural scenes of his medical triumphs, and translating him to the metropolis. But it was all in vain. The rustic glades of Sudbury had a charm for Jenner which he would not dissipate. "Shall I," wrote he, in a letter to a friend, "who, even in the morning of my life, sought the lowly and sequestered paths of it—the valley, and not the mountain—shall I now, when my evening is fast approaching, hold myself up as an object for fortune and for fame? My fortune, with what flows in from my profession, is sufficient to gratify my wishes." Tranquilly thus his life sped on amidst the rustic scenes he loved so well, until the year 1823, when death, somewhat suddenly, terminated his earthly career.

The subject of this memoir is an apt illustration of the proverb, that a prophet is without honour in his own country. Notwithstanding the undoubted efficiency of vaccination, prejudice deep and almost rancorous assailed it for many many years. Instead of waging war against small-pox with the uttermost, by the practice of vaccination, there were people who clamoured for small-pox inoculation; and in many districts medical men either approved or gave way to the clamour. The writer

of this paper remembers that in the year 1832, being then a medical student, acting under authority, he inoculated with small-pox virus more than one hundred and eighty children. Candour obliges me to testify that, so far as these cases went, and as I have otherwise seen, when small-pox inoculation was performed *after due preparation*, the resulting disease was slight, not attended with much danger, and left no marks on the face.

But if Jenner has come in for small amount of demonstrative honour at home, he has been amply indemnified for the lack of it in the demonstrative respect shown to his memory abroad. At Berlin, the 14th of May, the day when the efficacy of vaccination was first demonstrated, is still commemorated, as I have said, by an annual festival; and in the South American republics, amongst the population of which small-pox formerly raged with extreme fury and virulence, statues of Jenner are numerous and beautiful. To our shame, however, we, until quite recently, could boast no statue of Jenner amongst our metropolitan collection. "It was a very great shame," as a contemporary facetiously remarked, "that an individual who had helped to remove so many spots, could not have a spot for himself." Who, remembering what he—and still more emphatically what *she*—might have been but for Jenner, will not endorse this remark? But Jenner has his spot at last. Close together, on the western side of Charing Cross, may be seen a pair of sculptured forms, not a little distinct in aspect and bearing. One, a fierce-looking warrior, whose much-curved sword (the very counterpart of his own nose), and whose beard, representing the contempt in which he must have held razors, are symbols leaving no doubt that we gaze upon the effigy of Sir Charles Napier: the other, a pensive-looking, almost beardless man, sitting in a comfortable chair, musing, as it would seem, about some deep problem. This pensive-looking man is Jenner—an excellent likeness, it is said.

As a companion to the engraving of Jenner's statue, we have placed that of the memorial figure of Sir Isaac Newton, recently inaugurated at Grantham by Lord Brougham. Some notices of Newton's life will be found in the "Leisure Hour," Volume V., Nos. 217, 218, 219.

Ladies, I will conclude by relating to you an anecdote—one which I know to be true. In Denmark they won't marry people who come to the minister without each producing a certificate of vaccination. Certain English people were in the habit of running away to Denmark for the purpose of marrying deceased wives' sisters. Alas! they did not take their certificates of vaccination with them. Who would have dreamed of it? Well, the only solution of the difficulty was, to be vaccinated again—regularly shedding one's heart's blood for love, you see—a thing more often talked about than done.

## THE SCHOOLMASTER AND HIS SON:

A MEMOIR OF THE THIRTY YEARS' WAR.

CHAPTER XVII.—THE CLOSE.

As I read my son's letter, I felt and understood that the goodness of God does more than we can hope or think. I was able to rejoice in God my